# Ahmed Emad Eldeen Abdelmoneam

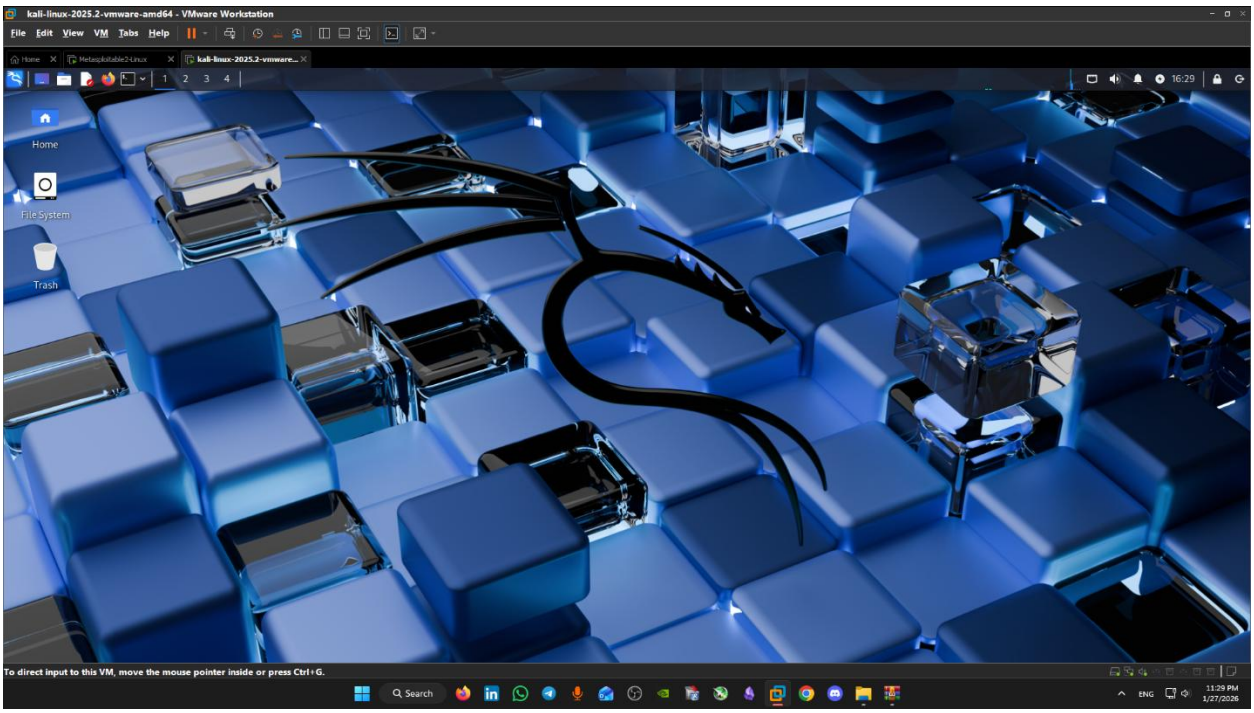
LinkedIn: https://www.linkedin.com/in/0x3omda/

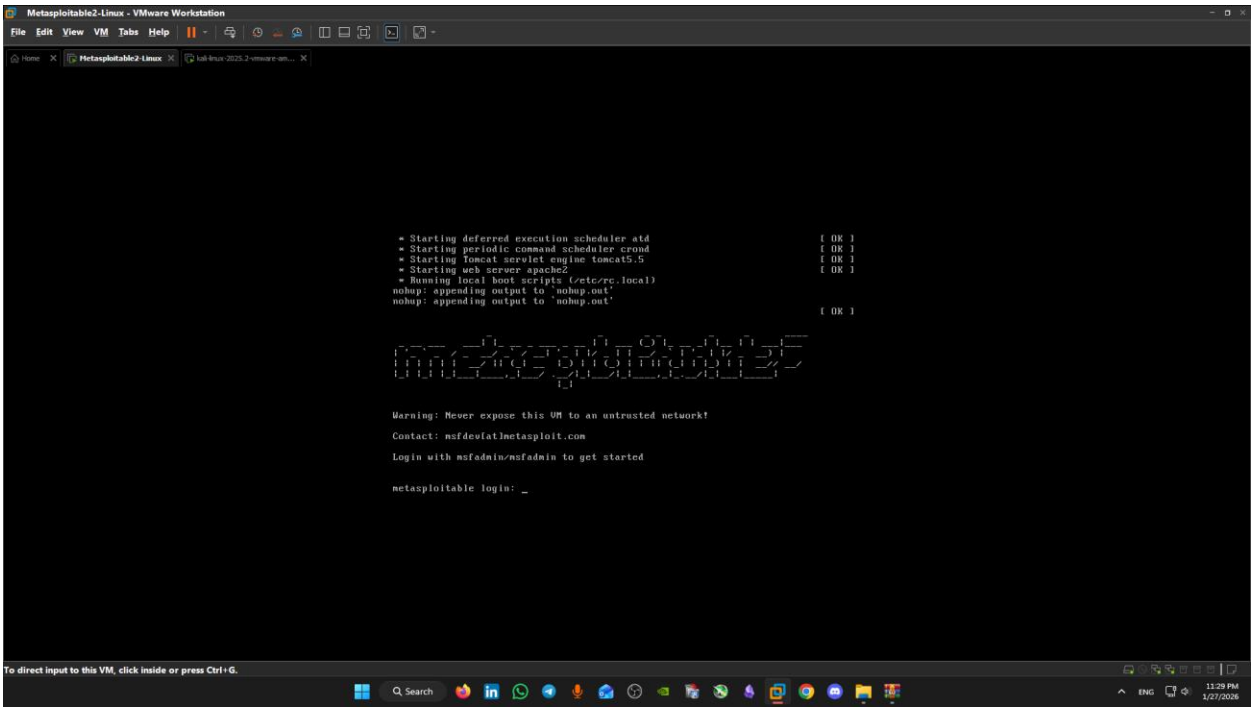
Portfolio : https://eng-ahmed-emad.github.io/AhmedEmad-Dev/

PostgreSQL Port : 5432

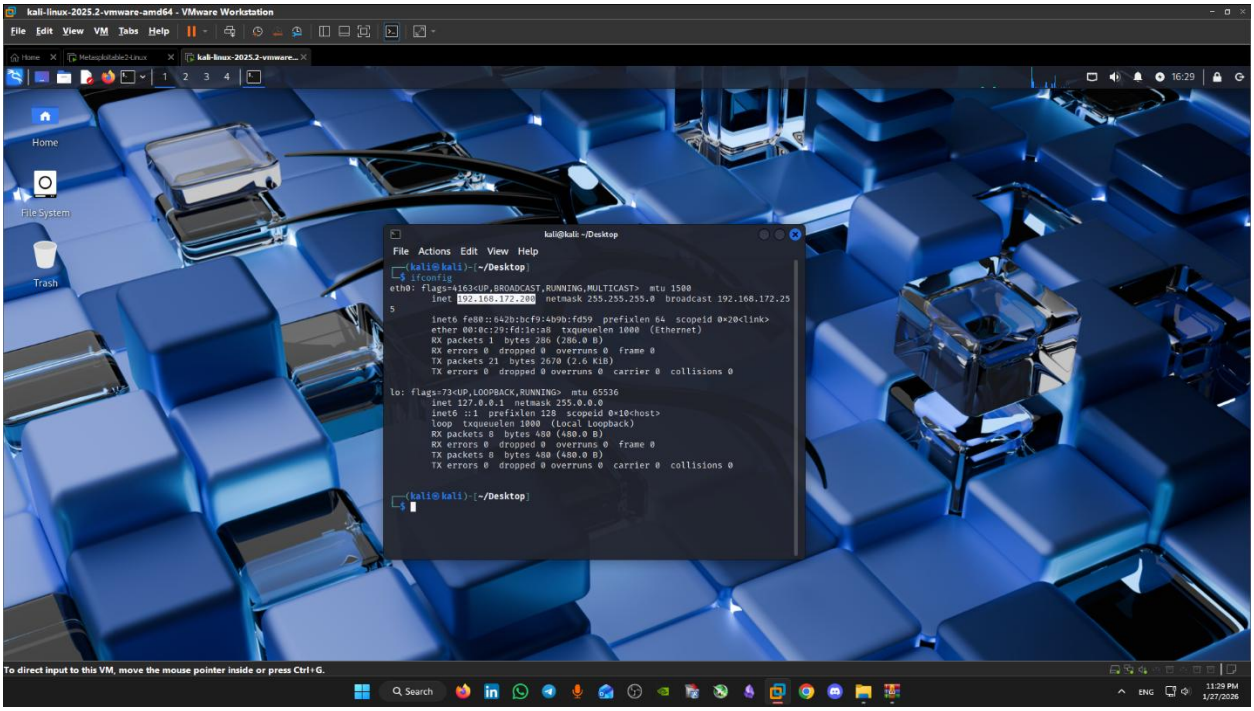
**PostgreSQL** is an open-source, object-relational database management system (ORDBMS) used to store and manage structured data.
It is widely adopted in enterprise and web applications due to its reliability, extensibility, and strong support for SQL standards.

First I Installed Kali Linux And Metasbolitable Machines






**Second** : I used **ifconfig** to know my ip and subnet (Target IP located: 192.168.172.129):




I Found Out It Was 192.168.172.0/24 so I used a simple Nmap Command On whole network and found out that machine has IP address of 192.168.172.129/24

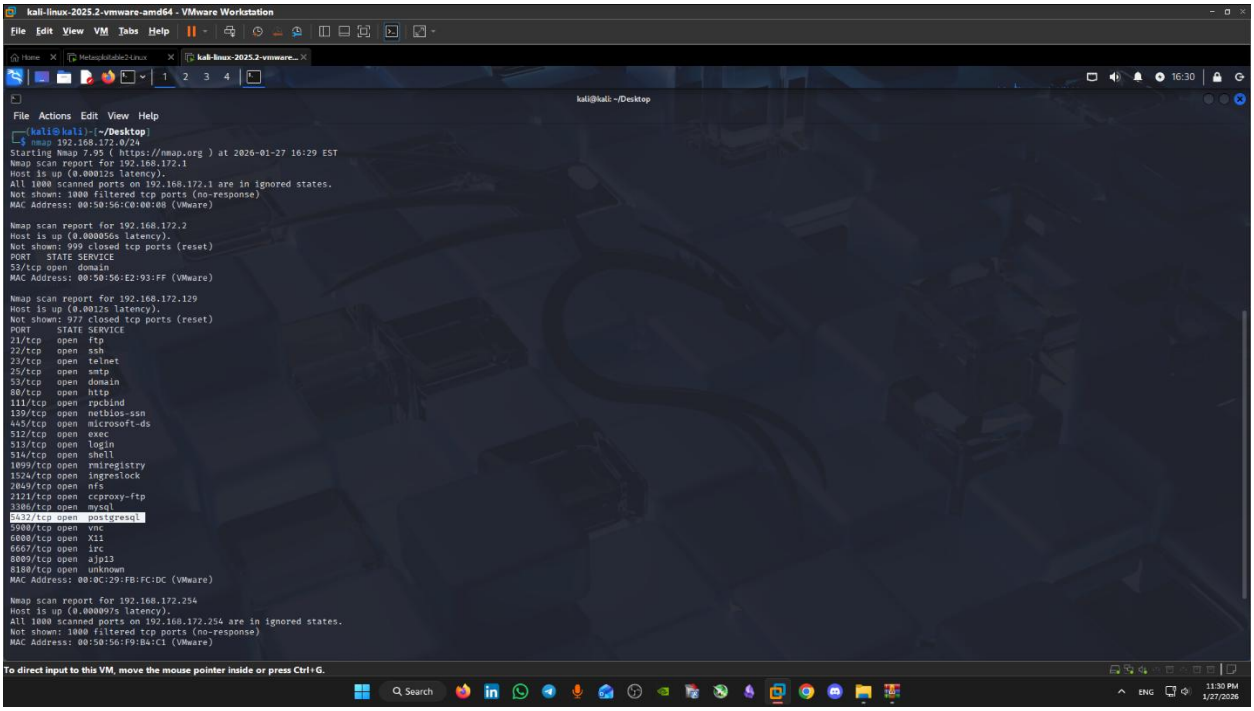
### 3. Port Scanning

Command:

Bash

nmap -p- 192.168.172.129

→ Port 5432 found open → service: postgresql




I found that the port I am curious about is open which is port **5432**

**Fourth :** I wanted to know the version  so I used -A option which

### 4. Detailed Service & Version Fingerprinting

Command:

Bash

nmap -A -p 5432 192.168.172.129

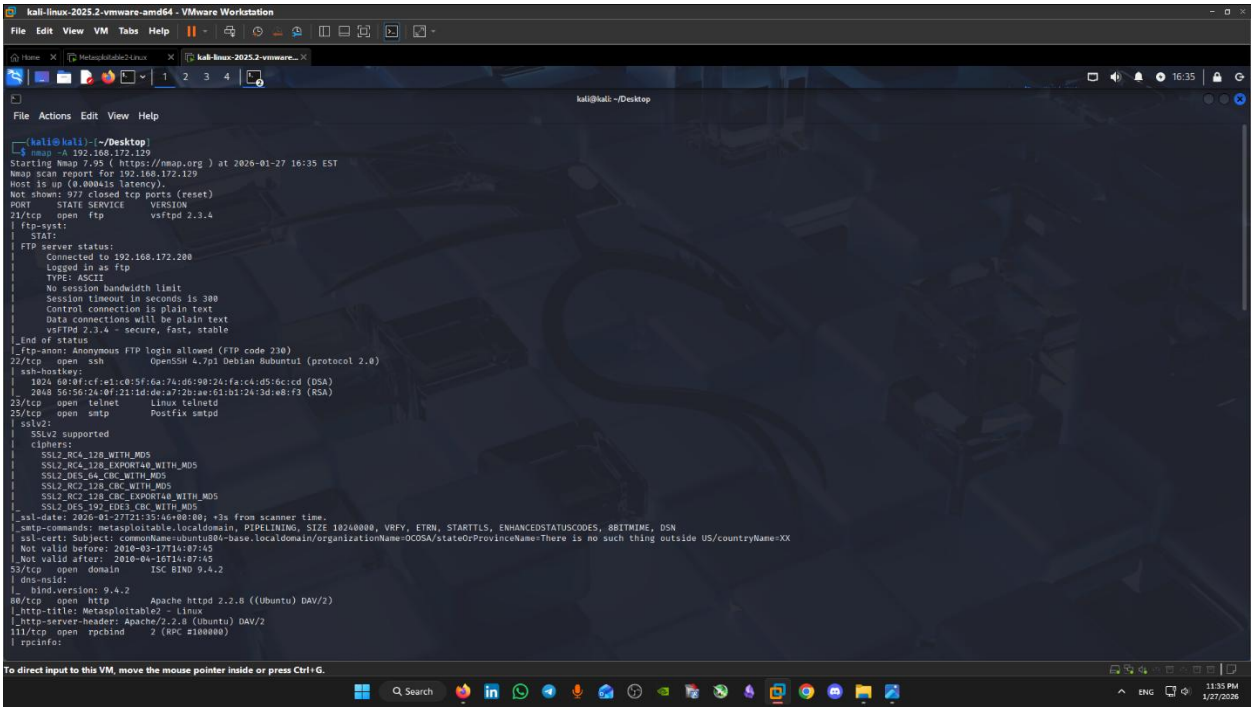
Result:

text

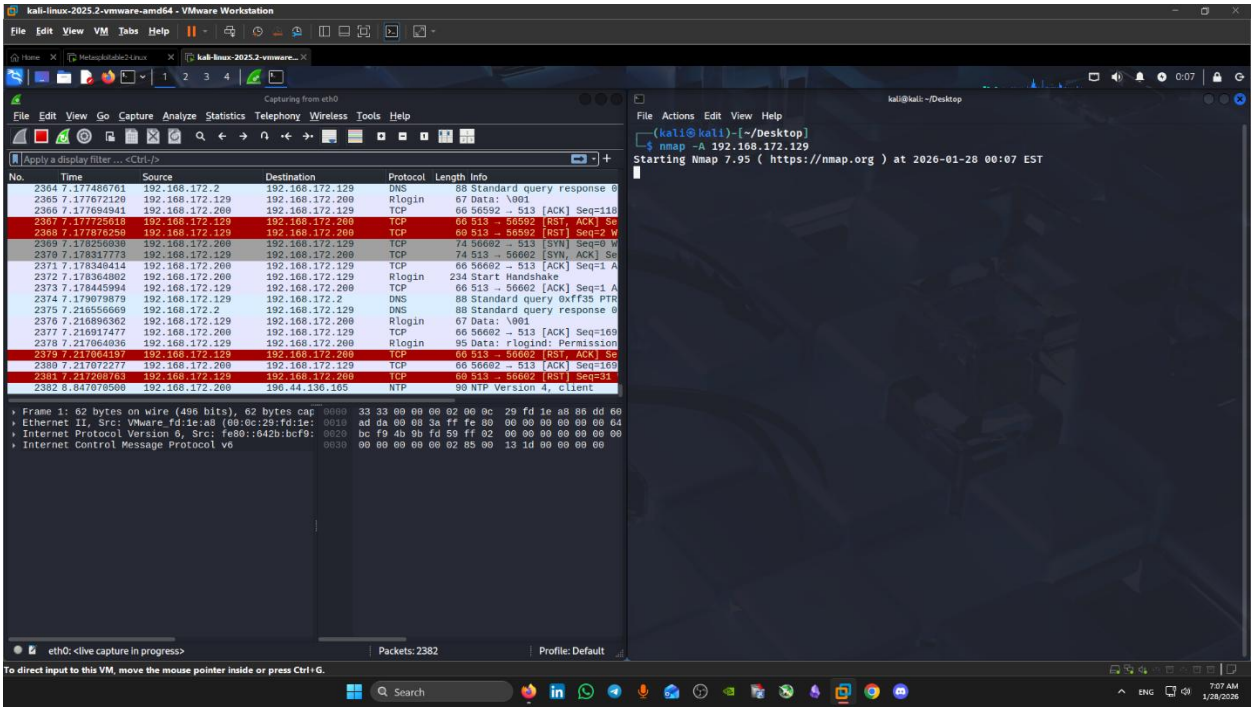
5432/tcp open  postgresql PostgreSQL DB 8.3.0 - 8.3.7

Confirmed version: **PostgreSQL 8.3.0 – 8.3.7**

enables **aggressive scan mode**, which combines **OS detection, version detection, default scripts (NSE), and traceroute** in a single scan.



And this is how nmap scan appears in **Wireshark** which help me improve my Analysis Skills (Educational) 😊

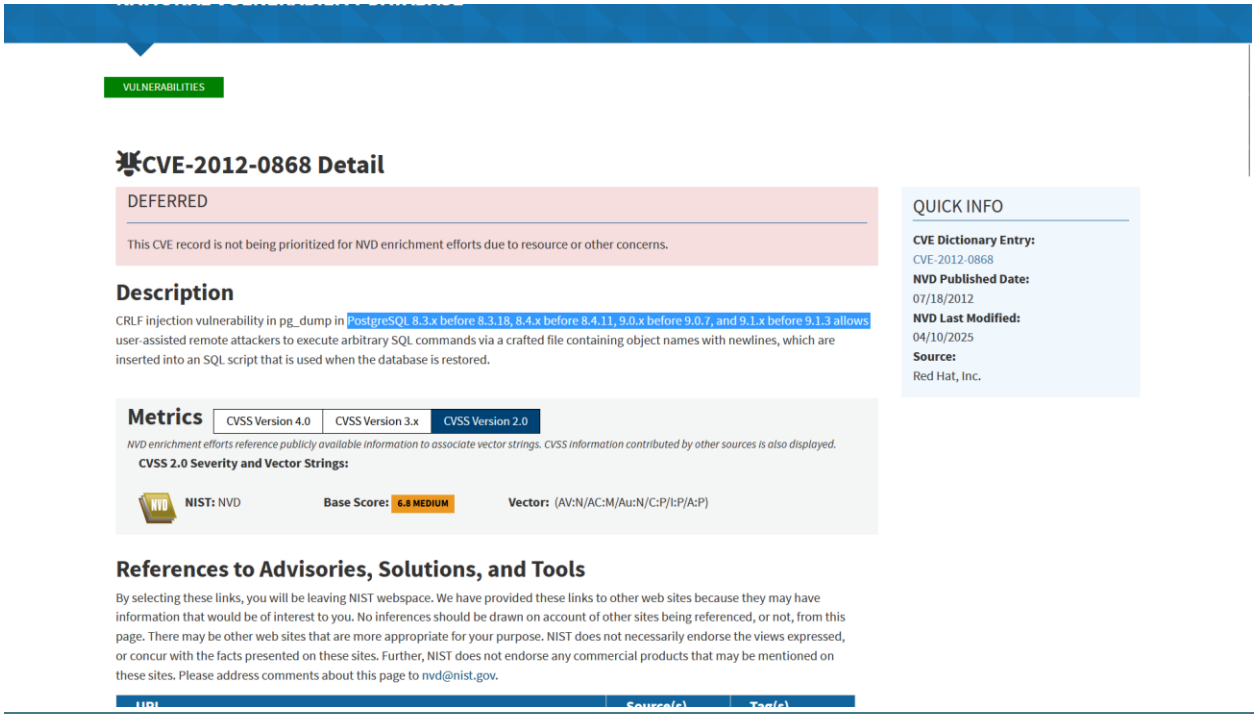



I found out that the version is **PostgreSQL DB 8.3.0 - 8.3.7**

**And I found 3 CVE's in NVD and and 1 in Exploit DB (CVE-2012-0868)**

- **CVE-2012-0868**
- **CVE-2012-2655**
- **CVE-2010-4015**
-

## NVD Report : https://nvd.nist.gov/vuln/detail/cve-2012-0868



VULNERABILITIES

### CVE-2012-0868 Detail

DEFERRED

This CVE record is not being prioritized for NVD enrichment efforts due to resource or other concerns.

#### Description

CRLF injection vulnerability in pg_dump in PostgreSQL 8.3.x before 8.3.18, 8.4.x before 8.4.11, 9.0.x before 9.0.7, and 9.1.x before 9.1.3 allows user-assisted remote attackers to execute arbitrary SQL commands via a crafted file containing object names with newlines, which are inserted into an SQL script that is used when the database is restored.

QUICK INFO

**CVE Dictionary Entry:**
CVE-2012-0868
**NVD Published Date:**
07/18/2012
**NVD Last Modified:**
04/10/2025
**Source:**
Red Hat, Inc.

#### Metrics

CVSS Version 4.0 | CVSS Version 3.x | CVSS Version 2.0

*NVD enrichment efforts reference publicly available information to associate vector strings. CVSS information contributed by other sources is also displayed.*

**CVSS 2.0 Severity and Vector Strings:**

**NIST:** NVD **Base Score:** 6.8 MEDIUM **Vector:** (AV:N/AC:M/Au:N/C:P/I:P/A:P)

#### References to Advisories, Solutions, and Tools

By selecting these links, you will be leaving NIST webspace. We have provided these links to other web sites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this page. There may be other web sites that are more appropriate for your purpose. NIST does not necessarily endorse the views expressed, or concur with the facts presented on these sites. Further, NIST does not endorse any commercial products that may be mentioned on these sites. Please address comments about this page to nvd@nist.gov.

## 6. Vulnerability Research

Searched National Vulnerability Database (NVD) and Exploit-DB for CVEs affecting PostgreSQL 8.3.x:

| CVE ID | CVSS v2 Score | Vulnerability Type | Impact | Reference |
|---|---|---|---|---|
| CVE-2012-0868 | 6.8 (Medium) | SQL Injection via CRLF in pg_dump/restore | Arbitrary SQL execution during restore from crafted backup | https://nvd.nist.gov/vuln/detail/CVE-2012-0868 |
| CVE-2012-2655 | 4.0 (Medium) | Denial of Service via SECURITY DEFINER functions | Authenticated users can crash the PostgreSQL server | NVD / PostgreSQL notes |
| CVE-2010-4015 | 6.5 (Medium) | Buffer overflow in intarray module (gettoken) | DoS + potential remote code execution (authenticated users) | NVD |

Information Technology Laboratory

NATIONAL VULNERABILITY DATABASE

NIST NATIONAL VULNERABILITY DATABASE NVD

VULNERABILITIES

# CVE-2012-2655 Detail

DEFERRED

This CVE record is not being prioritized for NVD enrichment efforts due to resource or other concerns.

## Description

PostgreSQL 8.3.x before 8.3.19, 8.4.x before 8.4.12, 9.0.x before 9.0.8, and 9.1.x before 9.1.4 allows remote authenticated users to cause a denial of service (server crash) by adding the (1) SECURITY DEFINER or (2) SET attributes to a procedural language's call handler.

## Metrics

CVSS Version 4.0 | CVSS Version 3.x | CVSS Version 2.0

*NVD enrichment efforts reference publicly available information to associate vector strings. CVSS information contributed by other sources is also displayed.*

**CVSS 2.0 Severity and Vector Strings:**

**NIST:** NVD **Base Score:** 4.0 MEDIUM **Vector:** (AV:N/AC:L/Au:S/C:N/I:N/A:P)

## References to Advisories, Solutions, and Tools

By selecting these links, you will be leaving NIST webspace. We have provided these links to other web sites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this page. There may be other web sites that are more appropriate for your purpose. NIST does not necessarily endorse the views expressed,

QUICK INFO

**CVE Dictionary Entry:**
CVE-2012-2655
**NVD Published Date:**
07/18/2012
**NVD Last Modified:**
04/10/2025
**Source:**
Red Hat, Inc.

Information Technology Laboratory

NATIONAL VULNERABILITY DATABASE

NIST NATIONAL VULNERABILITY DATABASE NVD

VULNERABILITIES

# CVE-2010-4015 Detail

DEFERRED

This CVE record is not being prioritized for NVD enrichment efforts due to resource or other concerns.

## Description

Buffer overflow in the gettoken function in contrib/intarray/_int_bool.c in the intarray array module in PostgreSQL 9.0.x before 9.0.3, 8.4.x before 8.4.7, 8.3.x before 8.3.14, and 8.2.x before 8.2.20 allows remote authenticated users to cause a denial of service (crash) and possibly execute arbitrary code via integers with a large number of digits to unspecified functions.

## Metrics

CVSS Version 4.0 | CVSS Version 3.x | CVSS Version 2.0

*NVD enrichment efforts reference publicly available information to associate vector strings. CVSS information contributed by other sources is also displayed.*

**CVSS 2.0 Severity and Vector Strings:**

**NIST:** NVD **Base Score:** 6.5 MEDIUM **Vector:** (AV:N/AC:L/Au:S/C:P/I:P/A:P)

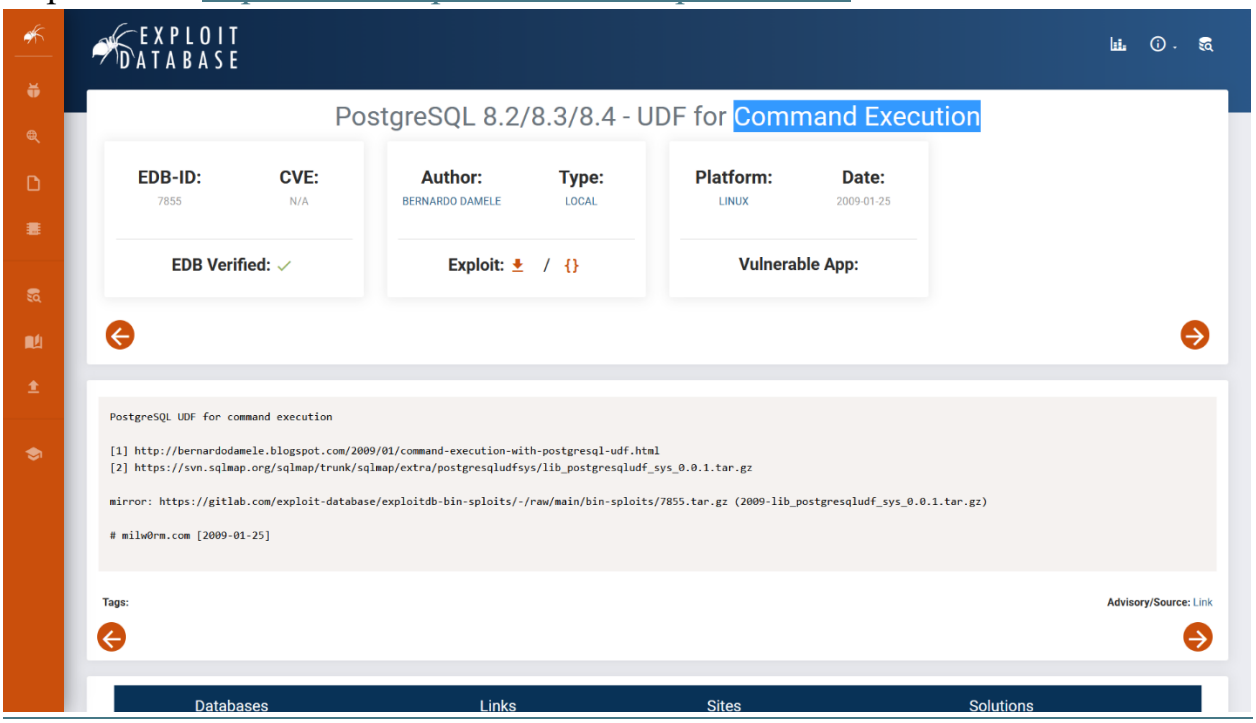
## References to Advisories, Solutions, and Tools

By selecting these links, you will be leaving NIST webspace. We have provided these links to other web sites because they may have information that would be of interest to you. No inferences should be drawn on account of other sites being referenced, or not, from this

QUICK INFO

**CVE Dictionary Entry:**
CVE-2010-4015
**NVD Published Date:**
02/01/2011
**NVD Last Modified:**
04/10/2025
**Source:**
Apple Inc.

ExploitDB : https://www.exploit-db.com/exploits/7855




## Vulnerability Summary

**CVE ID: CVE-2012-0868**
**Severity: Medium (CVSS v2.0: 6.8)**
**Type: SQL Injection via CRLF/Newline injection during backup restore**
**Impact: Execution of arbitrary SQL commands during the database restore process**

**CVE ID: CVE-2012-2655**
**Severity: Medium (CVSS v2.0: 4.0)**
**Type: Denial of Service due to improper handling of SECURITY DEFINER/SET in procedural language call handlers**
**Impact: Remote authenticated users can crash the PostgreSQL server, causing a denial of service**

**CVE ID: CVE-2010-4015**
**Severity: Medium (CVSS v2.0: 6.5)**
**Type: Buffer overflow in PostgreSQL intarray module (gettoken function)**
**Impact: Remote authenticated users can cause a denial of service and potentially execute arbitrary code**

**Additional Exploit Reference:** Exploit-DB 7855 – PostgreSQL UDF code execution https://www.exploit-db.com/exploits/7855

**Critical Note:** PostgreSQL 8.3 branch is **End-of-Life** since 2013 → no security updates → highly vulnerable when network-accessible.

**Conclusion**

- Successfully identified PostgreSQL 8.3.0–8.3.7 on port 5432.
- Located multiple medium-severity vulnerabilities exploitable due to outdated software.
- Demonstrated complete reconnaissance workflow: network discovery → port scan → version detection → vulnerability enumeration.
-

**Tools & Resources Used**

- ifconfig
- Nmap (-sn, -p-, -A)
- Wireshark
- NVD
- Exploit-DB
-

**Prepared by:** Ahmed Emad Eldeen Abdelmoneam
**Benha** – January 2026